

We claim:

1. An ergonomic computer mouse, comprising:

a body having a bottom surface, a top surface, a front end, a rear end, a thumb sidewall, and an opposite sidewall;

a plurality of finger buttons on the top surface of the body adjacent to the front end;

a thumb ball support extending from a rearward portion of the thumb sidewall, the thumb ball support being adapted to support a proximal end of a thumb of a user where the thumb connects to a hand of the user;

a concave thumb channel in the thumb sidewall located forward of the thumb ball support for receiving the thumb of the user; and

a thumb button extending from the thumb sidewall and located above the thumb channel so that the thumb of the user will be free of contact with the thumb button when the thumb of the user is in the thumb channel.

1 2. The ergonomic computer mouse of claim 1 wherein the top
2 surface of the body has an arcuate side view profile that is
3 substantially defined by a single radius, and wherein the
4 profile extends from the front end to the rear end.

5 3. The ergonomic computer mouse of claim 2 wherein the
6 rear end of the body is substantially contiguous in shape
7 with the profile of the top surface.

8 4. The ergonomic computer mouse of claim 2 wherein the
9 finger buttons are substantially contiguous in shape with
10 the profile of the top surface.

11 5. The ergonomic computer mouse of claim 2 wherein the
12 profile of the top surface forms an arcuate segment of
13 approximately 110 degrees.

14 6. The ergonomic computer mouse of claim 1 wherein a front
15 edge of the top surface of the body is forward of a front
16 edge of the bottom surface, and the front end extends from

1 the front edge of the top surface to the front edge of the
2 bottom surface.

3 7. The ergonomic computer mouse of claim 1 wherein the
4 thumb sidewall is inclined outward at the front end of the
5 body, and the thumb sidewall is inclined inward at the rear
6 end of the body.

7 8. The ergonomic computer mouse of claim 1 wherein the
8 thumb ball support has an arcuate top view profile that is
9 substantially defined by a single radius.

10 9. The ergonomic computer mouse of claim 8 wherein the
11 rear end of the body has an arcuate top view profile that is
12 contiguous with the top view profile of the thumb ball
13 support.

14 10. The ergonomic computer mouse of claim 9 wherein the
15 thumb ball support and the rear end form an arcuate segment
16 of approximately 225 degrees.

1 11. The ergonomic computer mouse of claim 1 wherein the
2 thumb ball support tapers into the thumb sidewall at angle
3 of approximately 45 degrees.

4 12. The ergonomic computer mouse of claim 1 wherein the
5 thumb ball support extends from a lower portion of the thumb
6 sidewall.

7 13. The ergonomic computer mouse of claim 1 wherein the
8 body has a width measured from the opposite sidewall to an
9 edge of the thumb ball support, and the thumb ball support
10 comprises about 25 to 35% of the width of the body beyond
11 the thumb sidewall.

12 14. The ergonomic computer mouse of claim 1 wherein the
13 thumb button is arcuate in shape and about 1.5 inches long.

14 15. The ergonomic computer mouse of claim 1, further
15 comprising a concave detent located between the finger
16 buttons.

1 16. The ergonomic computer mouse of claim 15, further
2 comprising a scroll tab extending from the detent, and
3 wherein the finger buttons have inner lateral side edges
4 that abut each other rearward of the detent.

5 17. An ergonomic computer mouse, comprising:

6 a body having a bottom surface, a top surface, a front
7 end, a rear end, a thumb sidewall, and an opposite sidewall,
8 wherein the top surface has an arcuate side view profile
9 that is substantially defined by a single radius, and
10 wherein the profile extends from the front end to the rear
11 end;

12 a plurality of finger buttons on the top surface of the
13 body adjacent to the front end;

14 a thumb ball support extending from a rearward portion
15 of the thumb sidewall and having an arcuate top view profile
16 that is substantially defined by a single radius, the thumb
17 ball support being adapted to support a proximal end of a
18 thumb of a user where the thumb connects to a hand of the
19 user;

1 a concave thumb channel in the thumb sidewall located
2 forward of the thumb ball support for receiving the thumb of
3 the user; and

4 a thumb button extending from the thumb sidewall and
5 located above the thumb channel so that the thumb of the
6 user will be free of contact with the thumb button when the
7 thumb of the user is in the thumb channel.

8 18. The ergonomic computer mouse of claim 17 wherein the
9 rear end of the body is substantially contiguous in shape
10 with the profile of the top surface.

11 19. The ergonomic computer mouse of claim 17 wherein the
12 finger buttons are substantially contiguous in shape with
13 the profile of the top surface.

14 20. The ergonomic computer mouse of claim 17 wherein the
15 profile of the top surface forms an arcuate segment of
16 approximately 110 degrees.

1 21. The ergonomic computer mouse of claim 17 wherein a
2 front edge of the top surface of the body is forward of a
3 front edge of the bottom surface, and the front end extends
4 from the front edge of the top surface to the front edge of
5 the bottom surface.

6 22. The ergonomic computer mouse of claim 17 wherein the
7 thumb sidewall is inclined outward at the front end of the
8 body, and the thumb sidewall is inclined inward at the rear
9 end of the body.

10 23. The ergonomic computer mouse of claim 17 wherein the
11 rear end of the body has an arcuate top view profile that is
12 contiguous with the top view profile of the thumb ball
13 support.

14 24. The ergonomic computer mouse of claim 23 wherein the
15 thumb ball support and the rear end form an arcuate segment
16 of approximately 225 degrees.

1 25. The ergonomic computer mouse of claim 17 wherein the
2 thumb ball support tapers into the thumb sidewall at angle
3 of approximately 45 degrees.

4 26. The ergonomic computer mouse of claim 17 wherein the
5 thumb ball support extends from a lower portion of the thumb
6 sidewall.

7 27. The ergonomic computer mouse of claim 17 wherein the
8 body has a width measured from the opposite sidewall to an
9 edge of the thumb ball support, and the thumb ball support
10 comprises about 25 to 35% of the width of the body beyond
11 the thumb sidewall.

12 28. The ergonomic computer mouse of claim 17 wherein the
13 thumb button is arcuate in shape and about 1.5 inches long.

14 29. An ergonomic computer mouse, comprising:

15 a body having a bottom surface, a top surface, a front
16 end, a rear end, a thumb sidewall, and an opposite sidewall,
17 wherein the thumb sidewall is inclined outward at the front

1 end of the body, and the thumb sidewall is inclined inward
2 at the rear end of the body;

3 a plurality of finger buttons on the top surface of the
4 body adjacent to the front end;

5 a thumb ball support extending from a rearward portion
6 of the thumb sidewall, the thumb ball support being adapted
7 to support a proximal end of a thumb of a user where the
8 thumb connects to a hand of the user;

9 a concave thumb channel in the thumb sidewall located
10 forward of the thumb ball support for receiving the thumb of
11 the user; and wherein

12 the top surface, the rear end, and the finger buttons
13 form a contiguous, arcuate side view profile that is
14 substantially defined by a single radius and extends from
15 the front end to the rear end.

16 30. The ergonomic computer mouse of claim 29 wherein the
17 profile forms an arcuate segment of approximately 110
18 degrees.

1 31. The ergonomic computer mouse of claim 29 wherein a
2 front edge of the top surface of the body is forward of a
3 front edge of the bottom surface, and the front end extends
4 from the front edge of the top surface to the front edge of
5 the bottom surface.

6 32. The ergonomic computer mouse of claim 29 wherein the
7 thumb ball support has an arcuate top view profile that is
8 substantially defined by a single radius.

9 33. The ergonomic computer mouse of claim 32 wherein the
10 rear end of the body has an arcuate top view profile that is
11 contiguous with the top view profile of the thumb ball
12 support.

13 34. The ergonomic computer mouse of claim 33 wherein the
14 thumb ball support and the rear end form an arcuate segment
15 of approximately 225 degrees.

1 35. The ergonomic computer mouse of claim 29 wherein the
2 thumb ball support tapers into the thumb sidewall at angle
3 of approximately 45 degrees.

4 36. The ergonomic computer mouse of claim 29 wherein the
5 thumb ball support extends from a lower portion of the thumb
6 sidewall.

7 37. The ergonomic computer mouse of claim 29 wherein the
8 body has a width measured from the opposite sidewall to an
9 edge of the thumb ball support, and the thumb ball support
10 comprises about 25 to 35% of the width of the body beyond
11 the thumb sidewall.

12 38. An ergonomic computer mouse, comprising:

13 a body having a bottom surface, a top surface, a front
14 end, a rear end, a thumb sidewall, and an opposite sidewall,
15 wherein the thumb sidewall is inclined outward at the front
16 end of the body, and the thumb sidewall is inclined inward
17 at the rear end of the body;

1 a plurality of finger buttons on the top surface of the
2 body adjacent to the front end;

3 a thumb ball support extending from a rearward portion
4 of the thumb sidewall, the thumb ball support being adapted
5 to support a proximal end of a thumb of a user where the
6 thumb connects to a hand of the user;

7 a concave thumb channel in the thumb sidewall located
8 forward of the thumb ball support for receiving the thumb of
9 the user; wherein

10 the thumb ball support and the rear end of the body
11 form a contiguous, arcuate top view profile with the rear
12 end of the body that is substantially defined by a single
13 radius; and wherein

14 the body has a width measured from the opposite
15 sidewall to an edge of the thumb ball support, and the thumb
16 ball support comprises about 25 to 35% of the width of the
17 body beyond the thumb sidewall.

18 39. The ergonomic computer mouse of claim 38 wherein the
19 top surface of the body has an arcuate side view profile
20 that is substantially defined by a single radius, and

1 wherein the profile extends from the front end to the rear
2 end.

3 40. The ergonomic computer mouse of claim 39 wherein the
4 rear end of the body is substantially contiguous in shape
5 with the profile of the top surface.

6 41. The ergonomic computer mouse of claim 39 wherein the
7 finger buttons are substantially contiguous in shape with
8 the profile of the top surface.

9 42. The ergonomic computer mouse of claim 39 wherein the
10 profile of the top surface forms an arcuate segment of
11 approximately 110 degrees.

12 43. The ergonomic computer mouse of claim 38 wherein a
13 front edge of the top surface of the body is forward of a
14 front edge of the bottom surface, and the front end extends
15 from the front edge of the top surface to the front edge of
16 the bottom surface.

1 44. The ergonomic computer mouse of claim 43 wherein the
2 thumb ball support and the rear end form an arcuate segment
3 of approximately 225 degrees.

4 45. The ergonomic computer mouse of claim 38 wherein the
5 thumb ball support tapers into the thumb sidewall at angle
6 of approximately 45 degrees.

7 46. The ergonomic computer mouse of claim 38 wherein the
8 thumb ball support extends from a lower portion of the thumb
9 sidewall.

10 47. An ergonomic computer mouse, comprising:

11 a body having a bottom surface, a top surface, a front
12 end, a rear end, a thumb sidewall, and an opposite sidewall,
13 wherein the thumb sidewall is inclined outward at the front
14 end of the body, and the thumb sidewall is inclined inward
15 at the rear end of the body;

16 a plurality of finger buttons on the top surface of the
17 body adjacent to the front end, wherein the top surface, the
18 rear end, and the finger buttons form a contiguous, arcuate

1 side view profile that is substantially defined by a single
2 radius and extends from the front end to the rear end;

3 a thumb ball support extending from a rearward portion
4 of the thumb sidewall, the thumb ball support being adapted
5 to support a proximal end of a thumb of a user where the
6 thumb connects to a hand of the user, wherein the thumb ball
7 support and the rear end of the body form a contiguous,
8 arcuate top view profile with the rear end of the body that
9 is substantially defined by a single radius;

10 a concave thumb channel in the thumb sidewall located
11 forward of the thumb ball support for receiving the thumb of
12 the user; and wherein

13 the body has a width measured from the opposite
14 sidewall to an edge of the thumb ball support, and the thumb
15 ball support comprises about 25 to 35% of the width of the
16 body beyond the thumb sidewall.

17 48. The ergonomic computer mouse of claim 47 wherein the
18 profile of the top surface forms an arcuate segment of
19 approximately 110 degrees.

1 49. The ergonomic computer mouse of claim 47 wherein a
2 front edge of the top surface of the body is forward of a
3 front edge of the bottom surface, and the front end extends
4 from the front edge of the top surface to the front edge of
5 the bottom surface.

6 50. The ergonomic computer mouse of claim 47 wherein the
7 thumb ball support and the rear end form an arcuate segment
8 of approximately 225 degrees.

9 51. The ergonomic computer mouse of claim 47 wherein the
10 thumb ball support tapers into the thumb sidewall at angle
11 of approximately 45 degrees.